

MONTHLY RESPIRATORY PATHOGENS SURVEILLANCE REPORT



NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 35 2021

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CUMULATIVE DATA FROM



HIGHLIGHTS: WEEK 35

- RSV activity remains below seasonal threshold in both influenza-like illness (ILI) and pneumonia surveillance programmes.

- Eight new cases of influenza from Western Cape (n=4), Gauteng (n=3) and KwaZulu-Natal (n=1) surveillance sites were detected in week35. To date, 85 influenza cases have been detected from Gauteng, Western Cape, North West, Eastern Cape, Mpumalanga and KwaZulu-Natal sentinel surveillance sites. The influenza season has not started.

- From 2 March 2020 to 5 September 2021, a total of 2 740 COVID-19 cases were detected from all surveillance programmes. A decline in detection rate has been noted in both ILI programme and pneumonia surveillance in week35. Of the 1 774 hospitalised COVID-19 cases reported with available data on outcome, 299 (17%) died.

INFLUENZA, RSV, *BORDETELLA PERTUSSIS* AND SARS-COV-2 SURVEILLANCE REPORT

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PROGRAMME DESCRIPTIONS

Programme	Influenza-like illness (ILI)	Viral Watch	National syndromic surveillance for pneumonia
Start year	2012	1984	2009
Provinces*	KZ NW WC** MP***	EC FS GP LP MP NC NW WC	GP KZ MP NW WC
Type of site	Primary health care clinics	General practitioners	Public hospitals
Case definition	<p>ILI: An acute respiratory illness with a temperature ($\geq 38^{\circ}\text{C}$) and cough, & onset ≤ 10 days</p> <p>Suspected pertussis Any person with an acute cough illness lasting ≥ 14 days (or cough illness of any duration for children < 1 year), without a more likely diagnosis AND one or more of the following signs or symptoms:</p> <ul style="list-style-type: none"> • paroxysms of coughing, • or inspiratory "whoop", • or post-tussive vomiting • or apnoea in children < 1 year; <p>OR</p> <p>Any person in whom a clinician suspects pertussis</p> <p>Suspected SARS-CoV-2 Any person presenting with an acute (≤ 14 days) respiratory tract infection or other clinical illness compatible with COVID-19[§]</p>	<p>ILI: An acute respiratory illness with a temperature ($\geq 38^{\circ}\text{C}$) and cough, & onset ≤ 10 days</p> <p>Suspected SARS-CoV-2 Any person presenting with an acute (≤ 14 days) respiratory tract infection or other clinical illness compatible with COVID-19[§]</p>	<p>SRI: Acute (symptom onset ≤ 10 days) or chronic (symptom onset > 10) lower respiratory tract infection</p> <p>Suspected pertussis Any person with an acute cough illness lasting ≥ 14 days (or cough illness of any duration for children < 1 year), without a more likely diagnosis AND one or more of the following signs or symptoms:</p> <ul style="list-style-type: none"> • paroxysms of coughing, • or inspiratory "whoop", • or post-tussive vomiting • or apnoea in children < 1 year; <p>OR</p> <p>Any person in whom a clinician suspects pertussis.</p> <p>Suspected SARS-CoV-2 Any person admitted with a physician-diagnosis of suspected COVID-19 and not meeting SRI case definition.</p>
Specimens collected	Oropharyngeal & nasopharyngeal swabs	Throat and/or nasal swabs or Nasopharyngeal swabs	Oropharyngeal & nasopharyngeal swabs
Main pathogens tested****	INF RSV BP SARS-CoV-2	INF RSV BP SARS-CoV-2	INF RSV BP SARS-CoV-2

Epidemic Threshold

Thresholds are calculated using the Moving Epidemic Method (MEM), a sequential analysis using the R Language, available from: <http://CRAN.R-project.org/web/package=mem> designed to calculate the duration, start and end of the annual influenza epidemic. MEM uses the 40th, 90th and 97.5th percentiles established from available years of historical data to calculate thresholds of activity. Thresholds of activity for influenza and RSV are defined as follows: Below seasonal threshold, Low activity, Moderate activity, High activity, Very high activity. For influenza, thresholds from outpatient influenza like illness (Viral Watch Programme) are used as an indicator of disease transmission in the community and thresholds from pneumonia surveillance are used as an indicator of impact of disease.

* EC: Eastern Cape; FS: Free State; GP: Gauteng; KZ: KwaZulu-Natal; LP: Limpopo; MP: Mpumalanga; NC: Northern Cape; NW: North West; WC: Western Cape

**Started in 2019

***Started in November 2020

****INF: influenza virus; RSV: respiratory syncytial virus; BP: *Bordetella pertussis*; SARS-CoV-2: severe acute respiratory syndrome coronavirus 2

[§]Symptoms include ANY of the following respiratory symptoms: cough, sore throat, shortness of breath, anosmia (loss of sense of smell) or dysgeusia (alteration of the sense of taste), with or without other symptoms (which may include fever, weakness, myalgia, or diarrhoea)

COMMENTS

Influenza

The influenza 2021 season has not started. Since the first influenza positive case of 2021 was detected in pneumonia surveillance in week 9 of 2021 (week ending on the 07 March 2021), sporadic cases have been reported from week 16 to date. Of the 85 influenza cases detected in surveillance sites in 2021, the majority (n=66, 78%) were influenza B/Victoria.

ILI programme: In 2021 to date, specimens from 1 246 patients meeting ILI case definition were received from 4 ILI sites. Influenza was detected in 13 (1%) patients, of which eight (62%) were influenza B(Victoria), two (15%) were influenza B (lineage inconclusive) and three (23%) were influenza B (lineage pending results). (Figure 1 and Table 1).

Viral Watch programme: In 2021 to date, specimens were received from 169 patients from Viral Watch sites in 5 of the 8 provinces participating in surveillance. Influenza was detected in nine (5%) patients, of which five (56%) were influenza B (Victoria), and four (44%) influenza B (lineage inconclusive) (Figure 5 and Table 4).

Pneumonia surveillance: Since the beginning of 2021, specimens from 4 278 patients with severe respiratory illness (SRI) were received from the 6 sentinel sites. Influenza was detected in 48 (1%) patients, of which five (10%) were influenza A(H3N2), 38 (79%) influenza B (Victoria), one (2%) was influenza B (lineage inconclusive) and four (8%) were influenza B (lineage pending results). (Figure 9 and Table 7).

In addition, influenza B (Victoria) was detected in 15 of 681 (2%) from patients who met suspected SARS-CoV-2 case definition but did not meet the pneumonia/ILI surveillance case definitions.

Respiratory syncytial virus

In 2021 to date, RSV transmission has been reported from all surveillance programmes, activity remains below seasonal threshold.

ILI programme: In 2021 to date, 1 246 specimens were tested and RSV was detected in specimens of 73 (6%) patients.

Viral Watch programme: During the same period, 169 specimens were tested and RSV was detected in specimens of six (4%) patients.

Pneumonia surveillance: Since the beginning of 2021, 4 278 specimens were tested and RSV was detected in specimens of 394 (9%) patients.

In addition, RSV was detected in 21 of 681 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet the pneumonia/ILI surveillance case definitions.

Bordetella pertussis

First new case of *B. pertussis* in 2021 was picked up in week33 from Gauteng Province - Rahima Moosa hospital – a two months old, Female.

ILI programme: From 1 January 2021 to date, combined nasopharyngeal and oropharyngeal specimens were tested from 1 243 patients and *B. pertussis* was not detected.

Pneumonia surveillance: During the same period, combined nasopharyngeal and oropharyngeal specimens were tested from 4 222 patients and *B. pertussis* was detected in one (0.02%).

In addition, *B. pertussis* was not detected in 675 specimens from patients who met suspected *B. pertussis* case definition but did not meet the pneumonia/ILI surveillance case definition.

SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2)

Testing for SARS-CoV-2 was initiated in all three surveillance programmes in week 10 of 2020 (week starting 2 March 2020).

ILI programme: From March 2020 to date, specimens from 2 559 patients were tested and SARS-CoV-2 was detected in 536 (21%) patients.

Viral Watch programme: From March 2020 to date, specimens were tested from 448 patients and SARS-CoV-2 was detected in 84 (19%) patients.

Pneumonia surveillance: From March 2020 to date, specimens from 8 293 patients with severe respiratory illness (SRI) were tested and SARS-CoV-2 was detected in 1 941 (23%) patients.

In addition, SARS-CoV-2 was detected in 179 of 884 (20%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet the pneumonia/ILI surveillance case definitions.

INFLUENZA, RSV, BORDETELLA PERTUSSIS AND SARS-COV-2 SURVEILLANCE REPORT

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

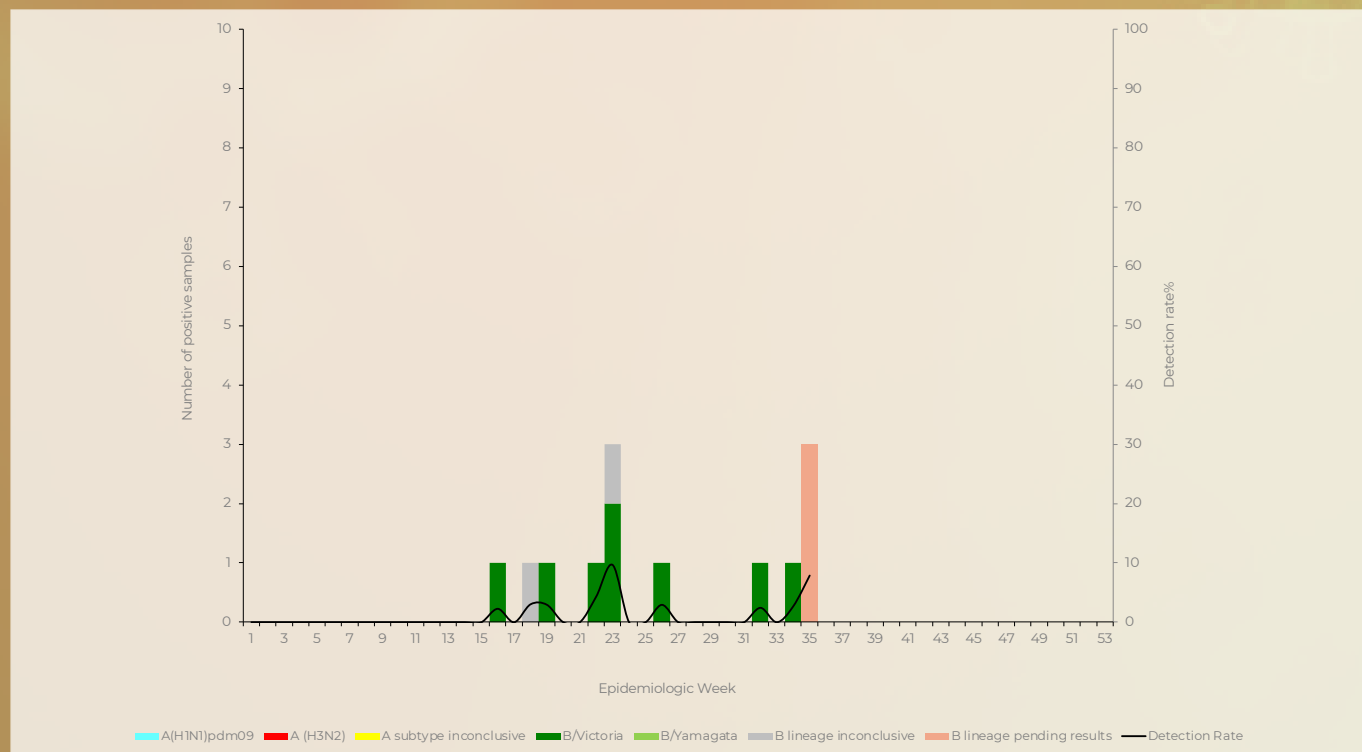


Figure 1. Number of positive samples* by influenza subtype and lineage** and detection rate*** by week

*Specimens from patients with influenza-like illnesses at 5 sentinel sites in 4 provinces

**Influenza was detected in 11 (2%) of 531 specimens, of which all were influenza B (Victoria), from patients who met suspected SARS-CoV-2 case definition but did not meet Influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

***Only reported for weeks with >10 specimens submitted

Inconclusive: insufficient viral load in sample and unable to characterise further

B lineage pending results: influenza B results for lineage are pending

Table 1. Cumulative number of influenza subtype and lineage** and total number of samples tested by clinic and province

Clinic (Province)	A(H1N1) pdm09	A(H3N2)	A subtype inconclusive	B/ Victoria	B/ Yamagata	B lineage inconclusive	B lineage pending results ***	Total samples
Agincourt (MP)	0	0	0	0	0	0	0	171
Eastridge (WC)	0	0	0	0	0	0	2	191
Edendale Gateway (KZ)	0	0	0	3	0	2	1	155
Jouberton (NW)	0	0	0	5	0	0	0	595
Mitchell's Plain (WC)	0	0	0	0	0	0	0	134
Total:	0	0	0	8	0	2	3	1 246

KZ: KwaZulu-Natal; NW: North West; WC: Western Cape; MP: Mpumalanga

Inconclusive: insufficient viral load in sample and unable to characterise further

**Influenza was detected in 11 (2%) of 531 specimens, of which all were influenza B (Victoria), from patients who met suspected SARS-CoV-2 case definition but did not meet Influenza-like illness (ILI) case definition. These are not included in the table.

***influenza B lineage results are pending

INFLUENZA, RSV, BORDETELLA PERTUSSIS AND SARS-COV-2 SURVEILLANCE REPORT

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

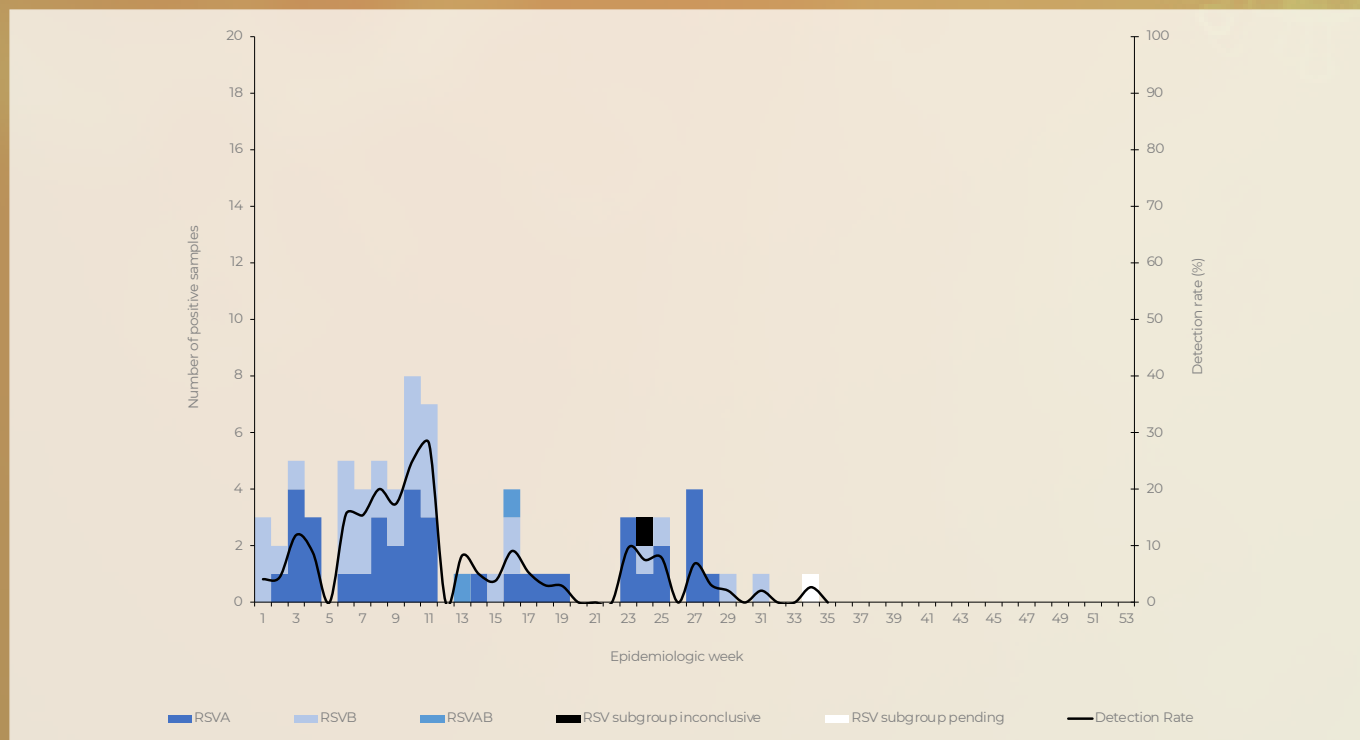


Figure 2. Number of samples testing positive for respiratory syncytial virus** by subgroup and detection rate by week

Inconclusive: insufficient viral load in sample and unable to characterise further
RSV AB: Both RSV A and B subgroup identified

**RSV was detected from 15 of 531 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

Table 2. Cumulative number of respiratory syncytial virus subgroups** identified and total number of samples tested by clinic and province

Clinic (Province)	RSVA	RSVB	RSVAB	RSV subgroup inconclusive	RSV subgroup pending*	Total samples
Agincourt (MP)	11	7	1	0	0	171
Eastridge (WC)	22	1	1	0	0	191
Edendale Gateway (KZ)	1	6	0	0	0	155
Jouberton (NW)	2	17	0	1	1	595
Mitchell's Plain (WC)	2	0	0	0	0	134
Total	38	31	2	1	1	1 246

KZ: KwaZulu-Natal; NW: North West; WC: Western Cape; MP: Mpumalanga
Inconclusive: insufficient viral load in sample and unable to characterise further
RSV AB: Both RSV A and B subgroup identified

*RSV results for subgroups are pending

**RSV was detected from 15 of 531 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the table.

INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

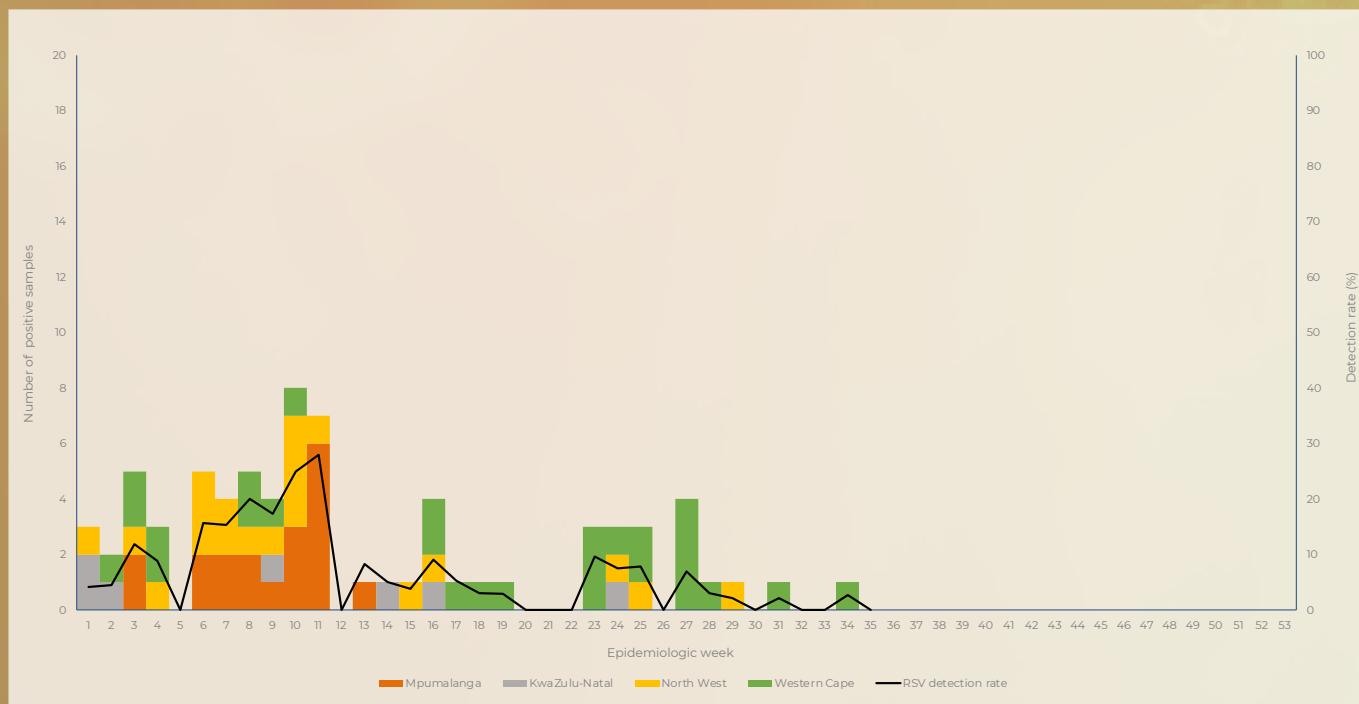


Figure 3. Number of samples testing positive for respiratory syncytial virus* by province and detection rate by week

**RSV was detected from 15 of 531 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

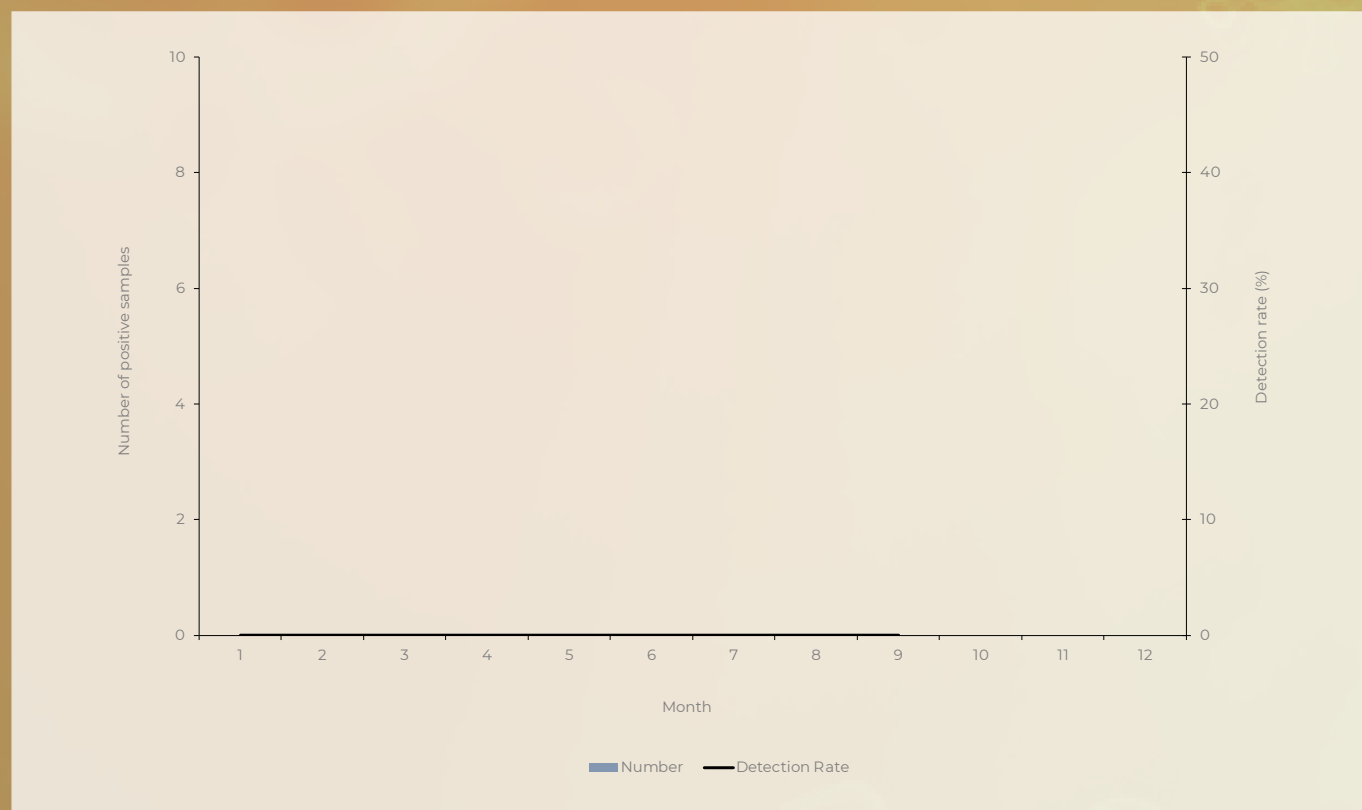


Figure 4. Number of samples testing positive for *B. pertussis* and detection rate by month

Table 3. Cumulative number of *B. pertussis* identified and total number of samples** tested by province

Clinic (Province)	<i>B. pertussis</i> Positive**	Total samples tested
Agincourt (MP)	0	171
Eastridge (WC)	0	191
Edendale Gateway (KZ)	0	151
Jouberton (NW)	0	605
Mitchell's Plain (WC)	0	125
Total:	0	1243

KZ: KwaZulu-Natal; NW: North West; WC: Western Cape; MP: Mpumalanga

**529 cases met the suspected pertussis case definition but did not meet Influenza-like illness (ILI) case definition. These are not included in the table or the epidemiological curve

INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE PRIMARY HEALTH CARE CLINICS

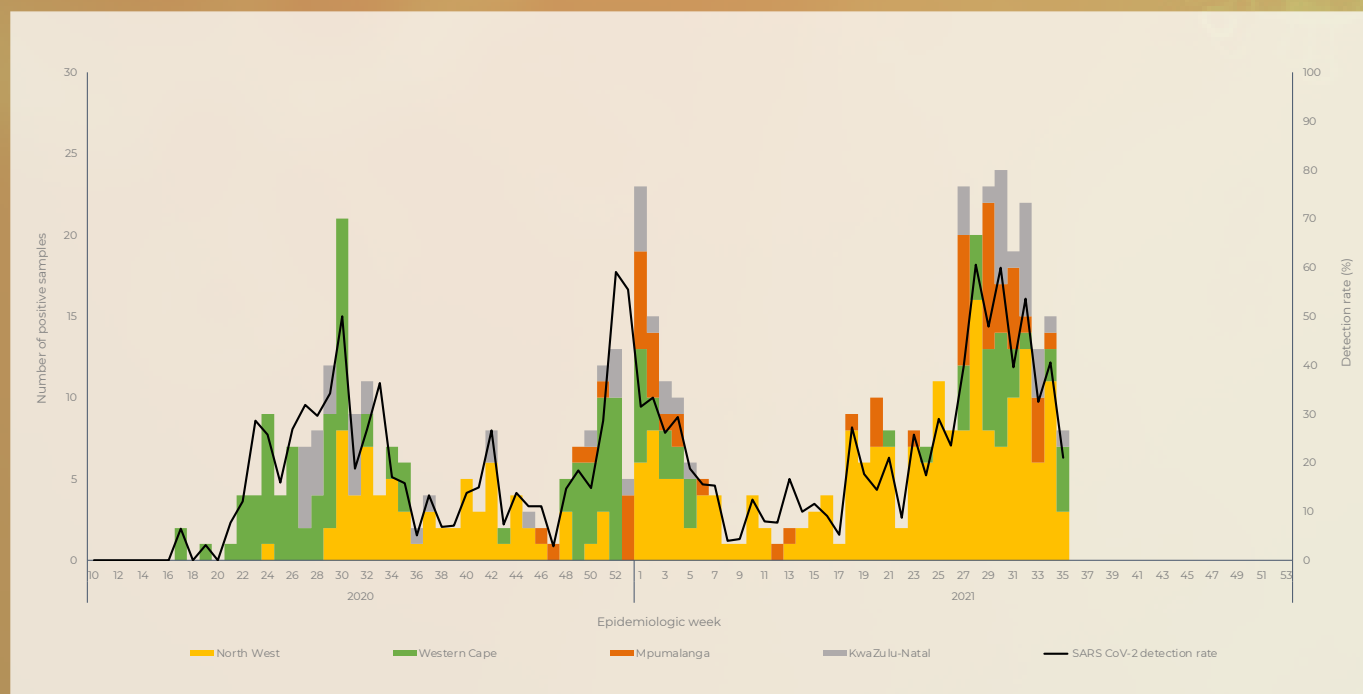


Figure 5. Number of samples testing positive for SARS-CoV-2* by province and detection rate by week

*Specimens from patients with influenza-like illnesses at 5 sentinel sites in 4 provinces

**SARS-CoV-2 was detected in 142 of 663 (21%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the epidemiological curve.

Table 4. Cumulative number of SARS-CoV-2 identified and total number of samples tested by clinic and province

Clinic (Province)	SARS-CoV-2 positive	Total samples tested
Agincourt (MP)	61	201
Eastridge (WC)	58	679
Edendale Gateway (KZ)	63	298
Jouberton (NW)	268	918
Mitchell's Plain (WC)	86	463
Total:	536	2 559

KZ: KwaZulu-Natal; NW: North West; WCP: Western Cape; MP: Mpumalanga (started enrolling on the 10th November 2020)

**SARS-CoV-2 was detected in 142 of 663 (21%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet influenza-like illness (ILI) case definition. These are not included in the table.

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INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH

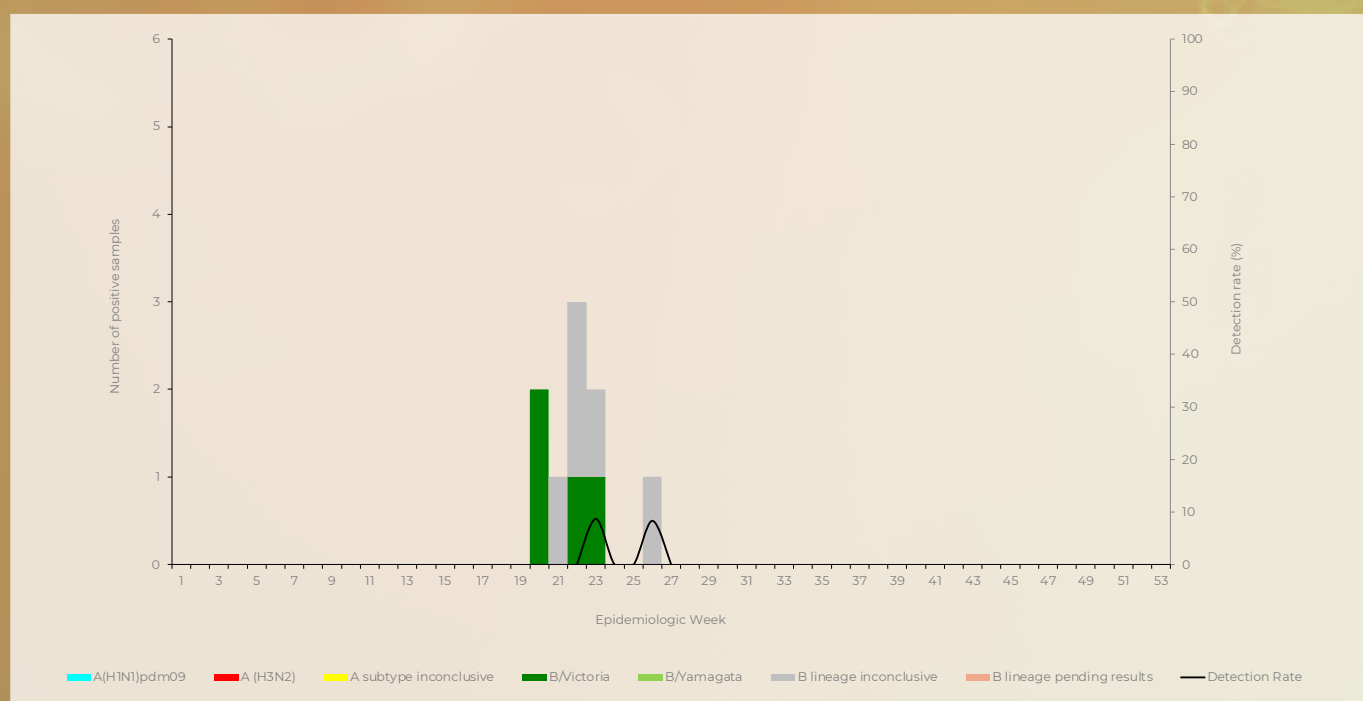


Figure 6. Number of positive samples* by influenza subtype and lineage and detection rate** by week

*Specimens from patients with Influenza-like illnesses at 90 sentinel sites in 8 provinces

** Only reported for weeks with >10 specimens submitted.

Inconclusive: insufficient viral load in sample and unable to characterise further

Table 5. Cumulative number of influenza subtype and lineage and total number of samples tested by province

Province	A(H1N1) pdm09	A(H3N2)	A subtype inconclusive	B/ Victoria	B/ Yamagata	B lineage inconclusive	B lineage pending results*	Total samples
Eastern Cape	0	0	0	1	0	0	0	1
Free State	0	0	0	0	0	0	0	0
Gauteng	0	0	0	4	0	4	0	139
Limpopo	0	0	0	0	0	0	0	0
Mpumalanga	0	0	0	0	0	0	0	3
North West	0	0	0	0	0	0	0	2
Northern Cape	0	0	0	0	0	0	0	0
Western Cape	0	0	0	0	0	0	0	24
Total:	0	0	0	5	0	4	0	169

*Inconclusive: insufficient viral load in sample and unable to characterise further

From 04 January 2021 to date, no patients were tested for influenza at the time of entry into South Africa following travel abroad.

Patients known to have acquired influenza abroad are not included in the table or epidemiological curve.

INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH

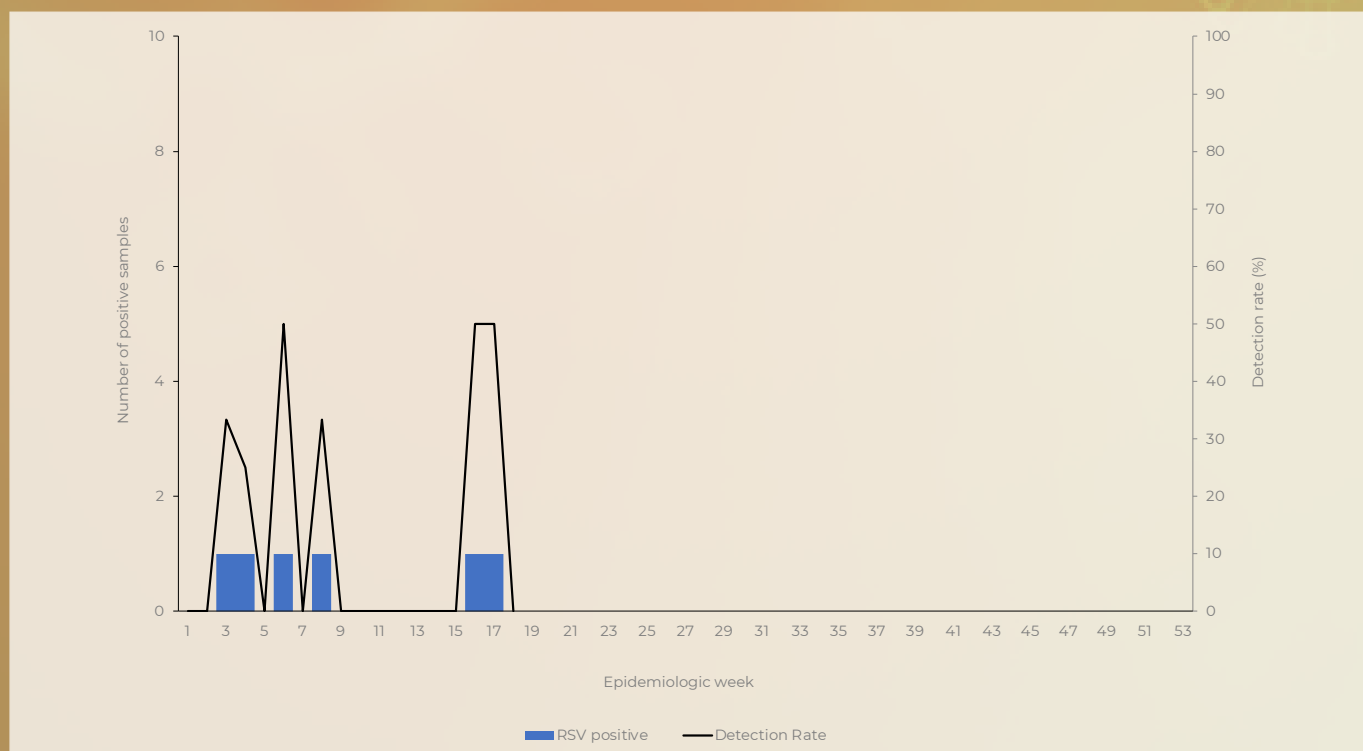


Figure 7. Number of samples testing positive for RSV*, and detection rate by week

*Specimens from patients with Influenza-like illnesses at 92 sentinel sites in 8 provinces

Table 6. Cumulative number of RSV positive cases identified and total number of samples tested by province

Clinic (Province)	RSV positive	Total samples tested
Eastern Cape	0	1
Free State	0	0
Gauteng	4	139
Limpopo	0	0
Mpumalanga	0	3
North West	0	2
Northern Cape	0	0
Western Cape	2	24
Total:	6	169

INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE VIRAL WATCH

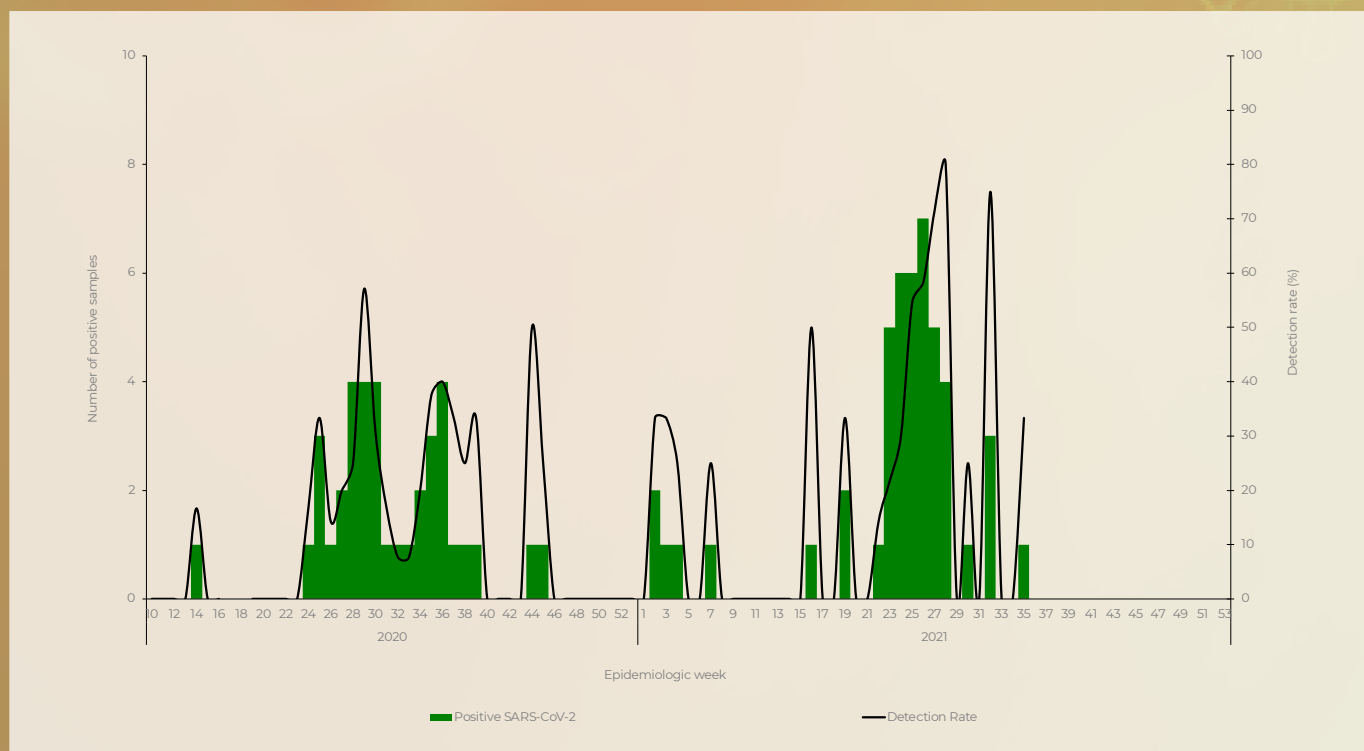


Figure 8. Number of samples testing positive for SARS-CoV-2*, and detection rate by week

*Specimens from patients with Influenza-like illnesses at 92 sentinel sites in 8 provinces

Table 7. Cumulative number of SARS-CoV-2 identified and total number of samples tested by province

Clinic (Province)	SARS-CoV-2 positive	Total samples tested
Eastern Cape	1	5
Free State	1	14
Gauteng	65	299
Limpopo	0	2
Mpumalanga	1	8
North West	0	2
Northern Cape	0	2
Western Cape	16	116
Total:	84	448

INFLUENZA, RSV, BORDETELLA PERTUSSIS AND SARS-COV-2 SURVEILLANCE REPORT

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NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

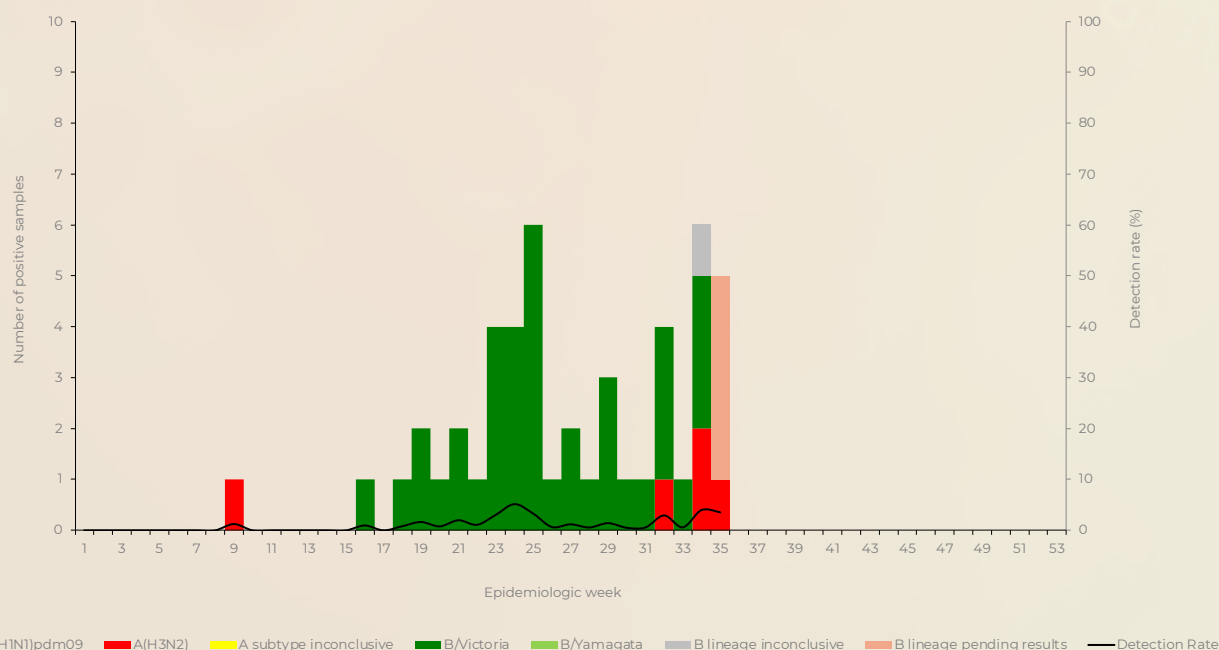


Figure 9. Number of positive samples* by influenza subtype and lineage** and detection rate*** by week

*Specimens from patients hospitalised with pneumonia at 7 sentinel sites in 5 provinces

**Influenza B(Victoria) was detected from four of 150 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

***Only reported for weeks with >10 specimens submitted

Inconclusive: insufficient viral load in sample and unable to characterise further

B lineage pending results: influenza B results for lineage are pending

Table 8. Cumulative number of identified influenza subtype and lineage** and total number of samples tested by hospital

Province	A(H1N1) pdm09	A(H3N2)	A subtype inconclusive	B/ Victoria	B/ Yamagata	B lineage inconclusive	B lineage pending results ***	Total samples
Edendale (KZ)	0	0	0	8	0	0	0	661
Helen Joseph-Rahima Moosa (GP)	0	4	0	15	0	1	2	1097
Klerksdorp-Tshepong (NW)	0	0	0	4	0	0	0	699
Mapulaneng-Matikwana (MP)	0	0	0	1	0	0	0	426
Red Cross (WC)	0	0	0	9	0	0	2	557
Mitchell's Plain (WC)	0	1	0	0	0	0	0	666
Tintswalo (MP)	0	0	0	0	0	0	0	172
Total:	0	5	0	38	0	1	4	4 278

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga (Tintswalo started enrolling on the 10th Feb 2021); WC: Western Cape

Inconclusive: insufficient viral load in sample and unable to characterise further

**Influenza B(Victoria) was detected from four of 150 (3%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the table.

***influenza B lineage results are pending

INFLUENZA, RSV, BORDETELLA PERTUSSIS AND SARS-COV-2 SURVEILLANCE REPORT

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NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

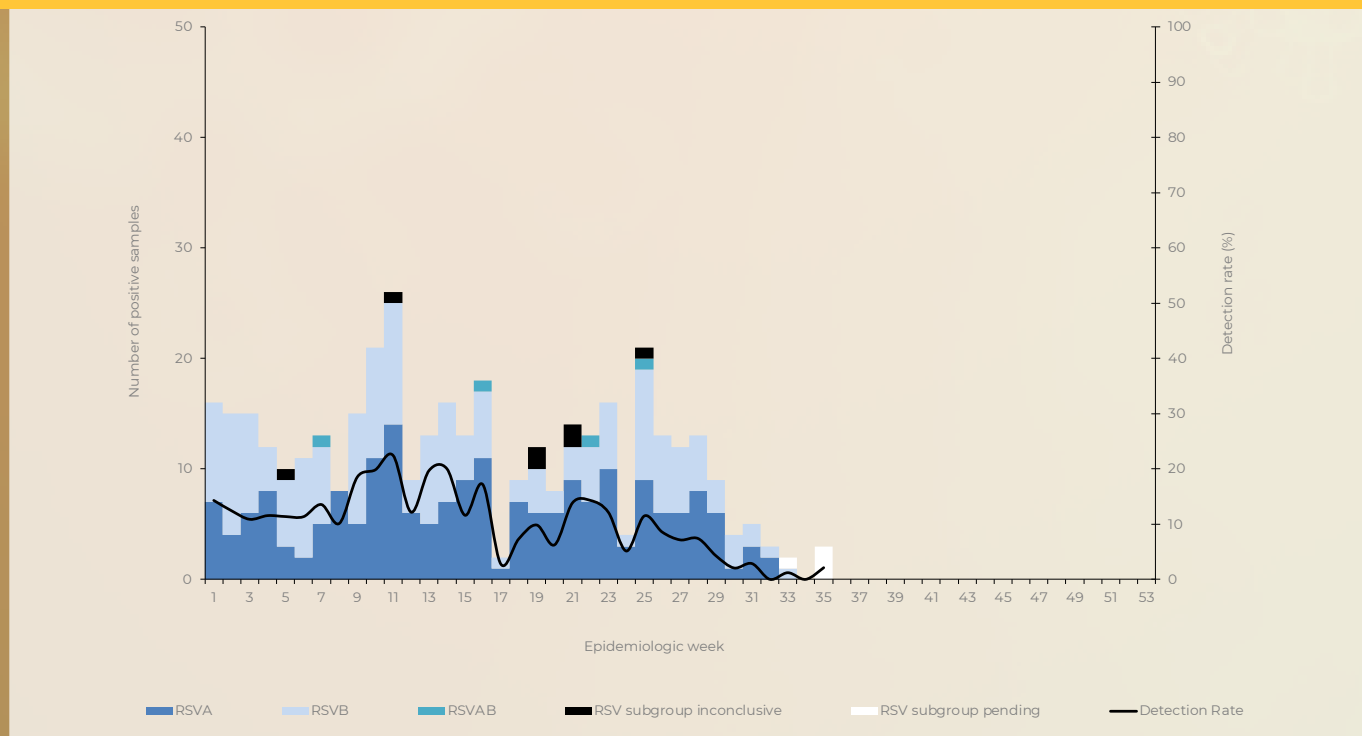


Figure 10. Number of samples testing positive for respiratory syncytial virus* by subgroup and detection rate by week

Inconclusive: Insufficient viral load in sample and unable to characterise further

RSV AB: Both RSV A and B subgroup identified

RSV subgroup pending: RSV results for subgroups are pending

*RSV was detected in six of 150 (4%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

Table 9. Cumulative number of respiratory syncytial virus subgroups** identified and total number of samples tested by hospital

Hospital (Province)	RSVA	RSVB	RSVAB	RSV subgroup inconclusive	RSV subgroup pending*	Total samples
Edendale (KZ)	5	29	0	0	0	661
Helen Joseph-Rahima Moosa (GP)	37	42	0	0	0	1097
Klerksdorp-Tshepong (NW)	8	44	0	2	0	699
Mapulaneng-Matikwana (MP)	20	7	1	0	0	426
Red Cross (WC)	84	43	2	4	2	557
Mitchell's Plain (WC)	37	10	1	1	2	666
Tintswalo (MP)	10	3	0	0	0	172
Total:	201	178	4	7	4	4 278

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga (Tintswalo started enrolling on the 10th Feb 2021); WC: Western Cape

Inconclusive: Insufficient viral load in sample and unable to characterise further

RSV AB: Both RSV A and B subgroup identified

*RSV results for subgroups are pending

**RSV was detected in six of 150 (4%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the table

NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

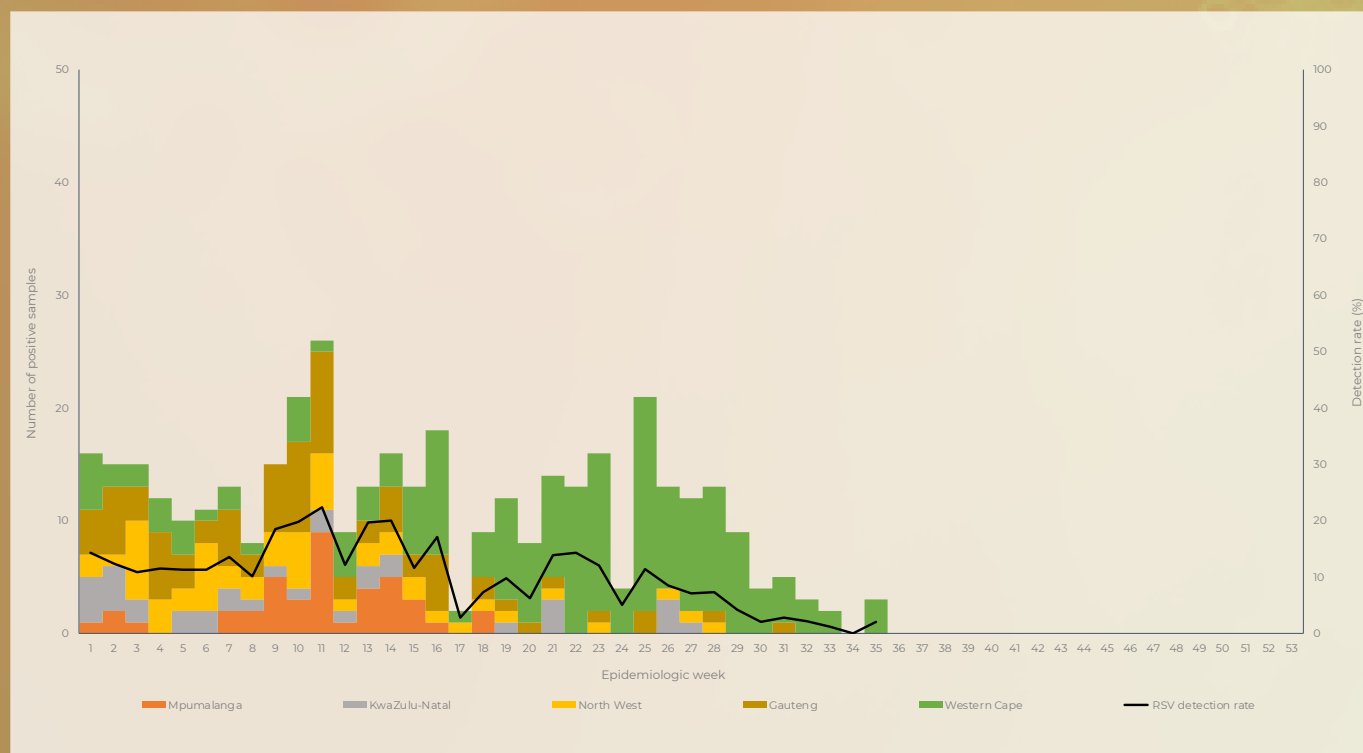


Figure 11. Number of samples testing positive for respiratory syncytial virus* by province and detection rate by week

*RSV was detected in six of 150 (4%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

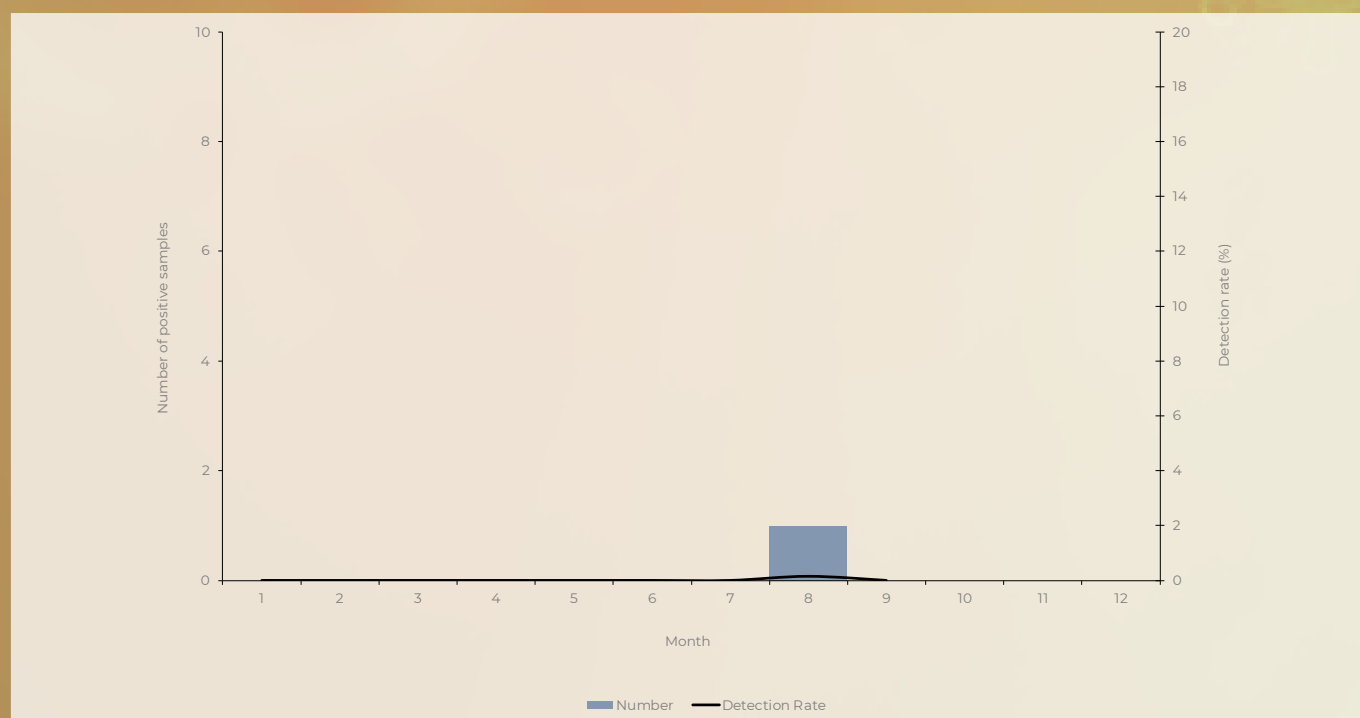


Figure 12. Number of samples testing positive for *B. pertussis* and detection rate by month

Table 10: Cumulative number of *B. pertussis* identified and total number of samples** tested by hospital and province

Hospital (Province)	<i>B. pertussis</i> Positive**	Total samples
Edendale (KZ)	0	628
Helen Joseph-Rahima Moosa (GP)	1	1095
Klerksdorp-Tshepong (NW)	0	708
Mapulaneng-Matikwana (MP)	0	414
Red Cross (WC)	0	553
Mitchell's Plain (WC)	0	656
Tintswalo (MP)	0	168
Total:	1	4 222

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga; WC: Western Cape

**96 cases met the suspected pertussis case definition but did not meet Pneumonia Surveillance case definition. These are not included in the table and epidemiologic curve.

NATIONAL SYNDROMIC SURVEILLANCE FOR PNEUMONIA

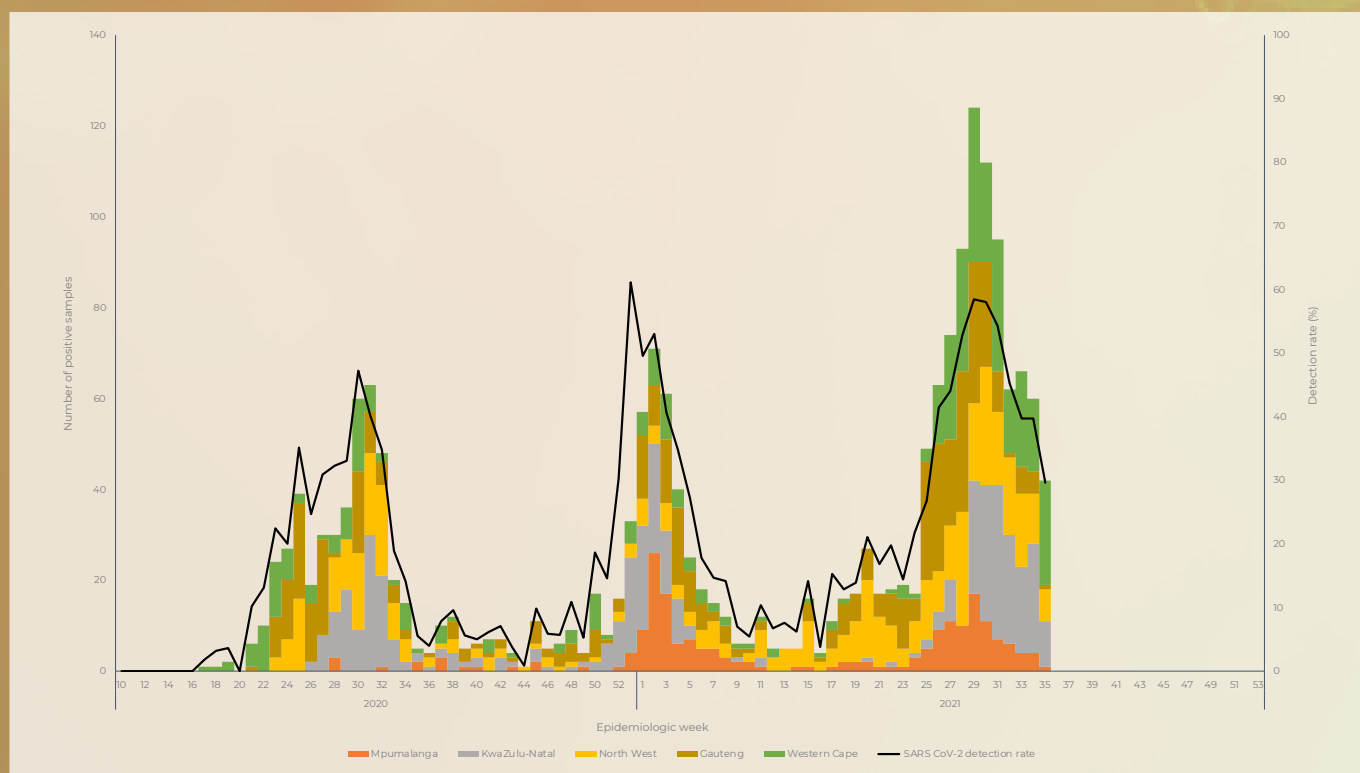


Figure 13. Number of samples testing positive for SARS-CoV-2*, and detection rate by week

*Specimens from patients hospitalised with pneumonia at 6 sentinel sites in 5 provinces

*SARS-CoV-2 was detected in 37 of 221 (17%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the epidemiological curve.

Table 11. Cumulative number of identified SARS-CoV-2 and total number of samples tested by hospital

Hospital (Province)	SARS-CoV-2 positive	Total samples tested
Edendale (KZ)	428	1 509
Helen Joseph-Rahima Moosa (GP)	473	1 943
Klerksdorp-Tshepong (NW)	444	1 291
Mapulaneng-Matikwana (MP)	157	728
Red Cross (WC)	57	1 515
Mitchell's Plain (WC)	336	1 136
Tintswalo (MP)	46	171
Total:	1 941	8 293

GP: Gauteng; KZ: KwaZulu-Natal; NW: North West; MP: Mpumalanga; WC: Western Cape

**SARS-CoV-2 was detected in 37 of 221 (17%) specimens from patients who met suspected SARS-CoV-2 case definition but did not meet pneumonia (SRI) case definition. These are not included in the table.

SUMMARY OF LABORATORY CONFIRMED SARS-COV-2 CASES

Table 12. Characteristics of laboratory-confirmed cases of COVID-19, enrolled in influenza-like illness (ILI) and pneumonia surveillance programmes, South Africa, 2 March 2020- 05 September 2021

Characteristic	Influenza-like illness (ILI), public-sector, n=678 (%)	Pneumonia, n=1 978 (%)
Age group		
0-9	52/678 (8)	129/1978 (6)
10-19	48/678 (7)	12/1978 (1)
20-39	314/678 (46)	349/1978 (18)
40-59	211/678 (31)	745/1978 (38)
60-79	51/678 (7)	669/1978 (34)
≥80	2/678 (<1)	74/1978 (4)
Sex-female	416/678 (61)	1207/1978 (61)
Province*		
Gauteng	N/A	474/1978 (24)
KwaZulu-Natal	105/678 (16)	433/1978 (22)
Mpumalanga**	84/678 (12)	234/1978 (12)
North West	341/678 (50)	444/1978 (22)
Western Cape	148/678 (22)	393/1978 (20)
Race		
Black	508/671 (76)	1536/1952 (78)
Coloured	133/671 (20)	310/1952 (16)
Asian/Indian	4/671 (1)	48/1952 (2)
White	21/671 (3)	38/1952 (2)
Other	5/671 (1)	20/1952 (1)
Presentation		
Fever	527/671 (79)	919/1952 (47)
Cough	653/671 (97)	1872/1952 (96)
Shortness of breath	242/671 (36)	1529/1952 (78)
Chest pain	289/671 (43)	788/1952 (40)
Diarrhoea	50/671 (7)	119/1952 (6)

INFLUENZA, RSV, *BORDETELLA PERTUSSIS* AND SARS-COV-2 SURVEILLANCE REPORT

WEEK **35** 2021

REPORTING PERIOD 2 MARCH 2020 TO **5 SEPTEMBER 2021**

Characteristic	Influenza-like illness (ILI), public-sector, n=678 (%)	Pneumonia, n=1 978 (%)
Underlying conditions		
Hypertension [§]	17/528 (3)	248/1655 (15)
Cardiac	2/671 (<1)	45/1952 (2)
Lung disease	0/671 (0)	2/1952 (<1)
Diabetes	16/671 (2)	401/1952 (21)
Cancer	2/671 (<1)	12/1952 (1)
Tuberculosis	10/671 (2)	44/1952 (2)
HIV-infection	126/671 (19)	416/1952 (21)
Other ***	12/671 (2)	90/1952 (5)
Management		
Oxygen therapy	9/669 (1)	1473/1910 (77)
ICU admission	N/A	40/1910 (2)
Ventilation	N/A	49/1910 (3)
Outcome***		
Died	0/661 (0)	299/1774 (17)

[§]ILI surveillance not conducted in Gauteng province

***Mpumalanga (ILI site started enrolling on the 10th November 2020 and an additional SARI site started enrolling on the 10th February 2021)

***Chronic lung, liver and kidney disease, organ transplant, pregnancy, malnutrition, obesity, tracheostomy, prematurity, seizure, stroke, anaemia, asplenia, burns, Systemic lupus erythematosus, seizures

****Outcome includes patients who are still hospitalised, have been discharged or referred, and those who died

[§]Data on hypertension was not collected on all cases

Note: Children may be over-represented amongst hospitalised patients due to the inclusion of a large paediatric hospital in Cape Town.

Of the 299 patients who died, three were in <20 age group, 21 in the 20-39 year age group, 99 in the 40-59 year age group, and 176 were ≥60 years; 172/299 (58%) were female.

Of the 954 hospitalised cases with COVID19 vaccine status, 80 (8%) received vaccine, 8 (10%) received Johnson & Johnson, 58 (73%) received the first dose of Pfizer-BioNTech, 3 (4%) Astra Zeneca and 11 (14%) could not remember the vaccine type received. 13 (16%) of the 80 cases had full vaccination (n=8, J&J and n=5, Pfizer-BioNTech). Cases age varied from 35 years to >60 years old and the majority (74%, 59/80) were >60 years old. Females were a majority 60% (48/80) and 11% (9/80) cases were HIV infected.